DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
QUALITY ASSURANCE PLAN	OSO1-9703

3. DESCRIPTION/PURPOSE

3.1 The Quality Assurance Plan is used to document the details of the contractor's quality system, including management commitment to quality, system elements, policy, and practices.

3.2 This plan provides the Government contracting activity a basis for assessment of the quality system and evidence of the contractor's intent to comply with the contract quality requirements.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000217	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for the BILS Production contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
TBD	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Format. Contractor format is acceptable.

10.2 General. The Quality Assurance Plan shall be in accordance with the requirements of the specific quality system or inspection system cited in the contract. The plan shall include traceability from the quality elements of the contract to the specific contractor/process which support those elements. Additionally, quality system requirements needed to support the elements of the contract shall be fully described.

10.3 Content. The plan shall include a summary of the contract quality requirements.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
PRELIMINARY DESIGN REVIEW (PDR) DATA PACKAGE	OSO1-9720

3. DESCRIPTION/PURPOSE

3.1 The Preliminary Design Review Data Package is required by the Government to permit adequate preparation for the Preliminary Design Review (PDR) prior to the review meeting.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
00/02/16	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
TBD	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Format. Contractor format is acceptable.

10.2 Content Requirements. The PDR data package shall provide sufficient documentation to confirm that the engineering analysis, design concepts, and design approach will:

a. Establish the basic design and preliminary engineering approach for the overall system.
b. Identify and describe the critical system and subsystem design , manufacturing, and performance problems and risks.
c. Satisfy the Functional Baseline (FBL).
d. Ensure the total system is ready for detailed design.

The PDR data package will include:

10.2.1 Issues Data. Provide preliminary engineering and design data sufficient to identify resolution of critical issues.

10.2.2 System Design Data. Provide preliminary system and subsystem design requirements data for the following:

10.2.2.1 Design Balance. Provide information on considerations given to cost, schedule, performance, and risk for the life cycle. Include discussion of effort to mitigate known risks and to make remaining risks acceptable. Provide documentation of risk and problem resolution.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Block 10. Preparation Instructions (Continued)

10.2.2.2 Preliminary Design Data. Provide preliminary design data to validate the Functional Baseline (Government specification and drawing requirements) and projected Allocated Baseline (ABL) including:

a. Description of basic design approach for the overall system.

b. System integration sketches, preliminary drawings, and schematic diagrams.

c. Shelter structural, electrical, and mechanical design concepts, preliminary sketches and drawings, and schematic diagrams.

d. Commercial equipment drawings, product descriptions, and characteristics.

10.2.2.3 Audit Trail. Provide a complete set of proposed and approved configuration changes from the Functional Baseline (FBL), including backup and supporting material.

10.2.2.4 Baselines. Define and describe the Allocated Baseline (ABL). Identify changes to the Functional Baseline as a basis for establishment of the Allocated Baseline.

10.2.3 Engineering Analysis Data. Provide systems engineering requirements analysis data to verify engineering decisions. Include sufficient engineering data to demonstrate achievement of specification requirements, and provide documentation describing preliminary engineering analysis of:

a. Basic engineering approach for the system.
b. Engineering specification and requirements review.
c. Preliminary engineering design reviews, studies, and computer program results.
d. Preliminary Reliability, Maintainability, and Availability (RMA) review.
e. Preliminary Integrated Logistic Support (ILS) review, including spares, and test and support equipment.

10.2.4 Test and Evaluation (T&E) Support for Design Approach. Provide existing COTS historical test and evaluation results and supporting documentation (including available COTS test plans, methods, standards, and procedures). Provide results of analysis and evaluation of T & E data, including documentation of performance, failures, reliability, maintainability, and cost.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
CRITICAL DESIGN REVIEW (CDR) DATA PACKAGE	OSO1-9721

3. DESCRIPTION/PURPOSE

3.1 The Critical Design Review Data Package is required by the Government to permit adequate preparation for the Critical Design Review (CDR) prior to the review meeting.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000216	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
TBD	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Format. Contractor format is acceptable.

10.2 Content Requirements. The CDR data package shall provide sufficient documentation to confirm that the detailed engineering analysis, system design, and production approach will:

a. Demonstrate that the detailed design and engineering approach for the overall system is complete.
b. Demonstrate that all critical system and subsystem design , manufacturing, and performance problems and risks have been resolved.
c. Satisfy the Functional and Allocated Baselines.
d. Define the Product Baseline (PBL).
e. Ensure the total system is ready for production.

The CDR data package will include:

10.2.1 Issues Data. Provide engineering, design, procurement, and manufacturing data sufficient to identify resolution of critical issues identified during or subsequent to the PDR.

10.2.2 System Design Data. Provide detailed system and subsystem design requirements data in the following areas:

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Block 10. Preparation Instructions (Continued)

10.2.2.1 Design Balance. Provide information on considerations given to cost, schedule, performance, and risk for the life cycle. Provide documentation of detailed design and production risks and problem resolution.

10.2.2.2 Detailed Design Data. Provide detailed design data to validate the projected Product Baseline (PBL) including:

a. Description of detailed design approach for the overall system.

b. System integration detailed drawings and schematic diagrams.

c. Shelter structural, electrical, and mechanical detailed design drawings and schematic diagrams.

d. Commercial equipment drawings, vendor product specifications, and manuals.

e. Site drawings and installation plans (as required).

10.2.2.3 Audit Trail. Provide a complete set of proposed and approved configuration changes from the Functional and Allocated Baselines, including backup and supporting material.

10.2.2.4 Baselines. Define and describe the projected Product Baseline. Identify changes to the Functional and Allocated Baselines as a basis for establishment of the Product Baseline.

10.2.3 Engineering Analysis Data. Provide systems engineering requirements analysis data to verify engineering decisions. Include sufficient engineering data to demonstrate achievement of specification requirements, and provide documents describing final detailed engineering analysis of:

a. Final engineering approach for the system.
b. Detailed engineering design reviews, studies, and computer program results.
c. Shelter transportability.
d. Safety and Electromagnetic Compatibility of integrated equipment.
e. Security.
f. Environmental impact.
g. Detailed Reliability, Maintainability, and Availability (RMA) review.
h. Detailed Integrated Logistic Support (ILS) review, including spares, test equipment, support equipment, technical manuals, and technical data.

10.2.4 Test and Evaluation (T&E) Support for Design Approach. Provide update of existing COTS historical test and evaluation results and supporting documentation (including COTS test plans, methods, standards, and procedures). Provide results of analysis and evaluation of T&E data, including documentation of performance, failures, reliability, maintainability, cost, etc.

10.2.5 Producibility. Provide documentation of production design and analysis, including:

a. Producibility requirements.
b. Production and manufacturing plans and processes; tools and test equipment; assembly procedures; and QA plans.
c. Standardization plans (including COTS items).
d. Currently planned COTS product and process improvements.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
Product Drawings and Associated Lists	OSO1-9722

3. DESCRIPTION/PURPOSE

3.1 Product Drawings and associated lists provide engineering data to support competitive procurement and maintenance for items substantially identical to original items. These drawings represent the highest level of design disclosure.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000216	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format and content preparation instructions for product Drawings and associated lists.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Reference Documents. The applicable issue of the documents cited herein, including their approval dates and the dates of applicable amendments and revisions, shall be as cited in the contract or purchase order.

10.2 General. Product drawings and associated lists shall provide the design disclosure information necessary to enable a manufacturer of similar products at the same or similar state of the art to produce and maintain quality control of item(s) so that the resulting physical and performance characteristics duplicate those of the original design. These drawings shall:

a. Reflect the end-product at its current level of design maturity.
b. Provide the engineering data for Logistics Support products.
c. Provide the necessary data to permit competitive acquisition of items identical to the original item(s).

10.3 Format. Product drawings and associated lists shall be in either the contractor's format or Government's format.

10.4 Content. Product drawings and associated lists shall document directly or by reference the following:

a. Details of unique processes, i.e. not published or generally available to industry, when essential to design and manufacture.
b. Performance ratings.
c. Dimensional and tolerance data.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Block 10. Preparation Instructions (Continued)

d. Critical manufacturing processes and assembly sequences.
e. Toleranced input and output characteristics.
f. Diagrams.
g. Mechanical and electrical connections.
h. Physical characteristics, including form and finish.
i. Details of material identification, including heat treatment and protective coatings.
j. Inspection, test and evaluation criteria.
k. Equipment calibration requirements.
l. Quality assurance requirements.
m. Hardware marking requirements.
n. Requirements for reliability, maintainability, environmental conditioning, shock and vibration testing and other operational or functional tests.
o. Vendor substantiation data when required by the contract or purchase order.

10.5 Item Definition. All parameters required to define each unit, assembly, subassembly, part or material shall be presented on the applicable drawing. This includes data such as:

a. All necessary mechanical dimensions to fully define fabrication, acceptance, interface or installation of the item depicted.
b. All necessary electrical parameters to fully define fabrication, acceptance, interface or installation of the item depicted.
c. All other necessary physical parameters to fully define fabrication, acceptance, interface or installation of the item depicted, i.e., weight, pressure, viscosity, etc.
d. All necessary environmental conditions which units, assemblies, subassemblies, parts and materials must meet to perform effectively in the end item, such that the end item will meet its specification requirements.

10.6 Selection of drawings. The types and quantity of drawings required will vary according to the complexity of the contract end item. The contractor is responsible for selecting the types and quantities of drawings and lists and presenting them for Government approval.

10.7 Limited Rights-in-Data Items. Product drawings for items for which the government does not have unlimited rights in data shall specify the form, fit and function requirements of the item.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
Commercial Drawings and Associated Lists	OSO1-9723

3. DESCRIPTION/PURPOSE

3.1 Commercial Drawings and associated lists define commercially developed items.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000217	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format and content preparation instructions for commercial drawings and associated lists.

7.2 This DID is applicable to acquisitions of commercially developed systems, equipmentes and components. Before acquiring Commercial drawings and associated lists, the acquiring activity should evaluate the contractor's drawing package and engineering documentation practices to determine if the data will be satisfactory for the Government's intended uses.

7.3 This DID should be tailored to the minimum data requirements of the applicable contract or purchase order.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Reference Documents. The applicable issue of the documents cited herein, including their approval dates and the dates of applicable amendments and revisions, shall be as cited in the contract or purchase order.

10.2 Format. Commercial drawings and associated lists shall be in the contractor's or original supplier's format.

10.3 Content. Commercial drawings and associated lists shall provide sufficient information to permit Government maintenance, modification, and engineering analysis of commercially developed items.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
CONTRACTOR'S CONFIGURATION MANAGEMENT PLAN	OSO1-9724

3. DESCRIPTION/PURPOSE

3.1 The Contractor's Configuration management (CM) Plan describes the contractor's configuration management program, how it is organized, how it will be conducted, and the methods, procedures ad controls used to assure effective configuration identification, change control, status accounting, and audits of the total configuration, including hardware, software, and firmware. The principal use is to provide the Government a basis for review, evaluation, and monitoring of the CM program and its proposed components.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000222	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format, content and preparation instructions for a data item.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Configuration Management Administration.

10.1.1 Contractor's CM Plan. The Contractor's Configuration Management Plan shall be in accordance with the requirements of the contract and shall describe the processes, methods, and procedures to be used to manage the functional and physical characteristics of the assigned CI(s). The contractor shall:

a. Develop the Contractor's configuration management plan in accordance with the requirements of this DID.
b. Submit the plan and changes thereto in accordance with the CDRL; and
c. Implement the activities required by this DID in accordance with the approved plan.

10.1.2 Technical Reviews. The contractor shall ensure that the configuration management representatives participate in all technical reviews conducted in accordance with the contract requirements. The role of configuration management in the technical review process shall include evaluating the adequacy of the type and content of the configuration documentation, ascertaining that the configuration documentation is under formal Government and/or internal configuration control, and determining whether problems/action items identified at the review will require submittal of Engineering Change Proposals against the current approved configuration documentation.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

10. PREPARATION INSTRUCTIONS CONT.

10.2 Configuration Identification.

10.2.1 Purpose of Configuration Identification. The purpose of configuration identification shall be to incrementally establish and maintain a definitive basis for control and status accounting for a CI. To accomplish configuration identification, the contractor shall:

a. Select Cis.
b. Select configuration documentation to be used to define configuration baselines for each CI.
c. Establish a release system for configuration documentation.
d. Define and document interfaces.
e. Enter each item of configuration documentation into a controlled developmental configuration.
f. Establish the functional, alllocated, and product baselines at the appropriate points in the system/CI life sysle, upon Government approval/contractual implementation of the applicable configuration documentation, and in accordance with contract requirements.
g. Assign identifiers to Cis and their component parts and associated configuration documentation, including revision and version numbers where appropriate. Assigning serial and lot numbers, as necessary, to establish the CI effectivity of each configuration of each item of hardware.
h. Ensure that the marking or labeling of items and documentation with their applicable identifiers enables correlation between the item, configuration documentation, and other associated data.
i. Ensure that applicable identifiers are embedded in the source and object code.

10.2.2 Configuration Item Selection. The contractor shall select and recommend potential CIs to the Government. Any item requiring logistics support is a CI. The final CI selection will be made by the Government.

10.2.3 Developmental Configuration. The contractor shall establish and implement a developmental configuration management process. This process shall be used to control the documentation and repositories containing the elements of the developmental configuration. The contractor shall prepare a problem/change report to describe each problem detected in items that have been placed under internal configuration control. The problem/change report shall describe the corrective action needed and the actions taken to resolve the problem. The contractor shall implement a corrective action process for handling all problems detected in the products under internal configuration control. The corrective action process shall ensure that all detected problems are promptly reported, action is initiated on them, resolution is achieved, status is tracked and reported, and records of the problems are maintained.

10.2.4 Configuration Baseline. Configuration management normally employs three types of configuration baselines, the functional, allocated, and product baselines, to provide for the progressive definition and documentation of the requirements and design information describing the various Cis designated for a system. The contractor shall establish configuration baselines for all CIs in accordance with the terms of the contract. The contractor shall define the documentation required for the baseline to a level of detail commensurate with logistics support requirements and procurement strategies, in accordance with the requirements of the contract.

10.2.4.1 Functional Configuration Documentation (FCD). The contractor shall define the documentation required for the functional baseline in accordance with the requirements of the contract. The FCD shall be in the form of a system specification for a system, or a prime item development specification for a single item development program plus other applicable documentation. The FCD shall also identify the configuration documentation for selected items which are to be integrated or interfaced with the CI, such as items separately developed or currently in the inventory.

10.2.4.2 Allocated Configurationn Documentation (ACD).The contractor shall define the documentation required for the allocated baseline in accordance with the requirements fo the contract. The ACD shall define requirements allocated from the FCD or from a higher level CI to a lower level CI. The ACD shall be in the form of development or requirement specifications, referenced interface control drawings/documents, and other applicable documentation. Requirements may be allocated to facilitate the management of complex Cis, to facilitate the development and integration of system components, or to focus management attention on critical or high-risk components.

10.2.4.3 Product Configuration Documentation (PCD). The contractor shall define the documentation required for the product baseline to a level of detail commensurate with logistics support requirements and procurement strategies, in accordance with the requirements of the contract. The PCD shall be in the form of product, material, and process specifications, engineering drawings, and other technical documentation comprising a complete technical data package for the CI. The PCD shall prescribe the necessary physical and functional characteristics of the CI and the verifications required to demonstrate required performance. The contractor shall document the PCD as specified in the contract.

10.2.4.4 Maintenance of Configuration Documentation. Once the related configuration baseline has been established, the contractor shall control and maintain the originals of the current approved configuration documentation for all configuration items specified in the contract.

10.2.5 Engineering Release and Correlation of Manufactured Products. The contractor shall establish an engineering release system and shall use the system to issue configuration documentation to functional activities (e.g., manufacturing, logistics, quality assurance, acquisition) and to authorize the use of configuration documentation associated with an approved configuration.

10.2.5.1 Change Release. Changes to the released configuration documentation shall only be accomplished as a result of an approved Class I or Class II engineering change as approved by the Government.

10.2.6 Interface Management. The interface requirements for the system and its configuration items shall be identified as a part of the system engineering process. Those interface requirements which must be controlled by the Government during the development of the system shall be incorporated. The contractor shall ensure the compatibility and interoperability among the various hardware and software components for which he is the design activity and between those components and the interfaces/components specified in the baselined configuration documentation.

10.3. Configuration Control. Configuration control is the systematic proposal, justification, evaluation, coordination, approval or disapproval of proposed changes, and the implementation of all approved changes, in the configuration of a CI after establishment of the configuration baseline for the CI.

10.3.1 Purpose of Configuration Control. The contractor shall implement a configuration control function that ensures regulation of the flow of proposed changes, documentation of the complete impact of the proposed changes, and release only of approved configuration changes into CIs and their related configuration documentation.

10.3.2 Requirements for Engineering Changes. An Engineering Change Proposal shall be required for any changes to the current approved configuration documentation. The contractor shall include the following elements in the configuration control process.

a. Determination of a need for the change.
b. Review and evaluation of the change.
c. Disposition of the change.
d. Preparation of an ECP.
e. Submittal of the ECP to the Government.
f. Incorporation of approved (or concurred in) engineering changes in the documentation, including, when applicable, negotiation into the contract.
g. Implementation of the change in accordance with the contract.

10.3.3 Requirements for Requests for Deviation (RFD). The contractor shall not manufacture items for acceptance by the Government that incorporate a known departure from requirements, unless a request for a deviation has been submitted to the Government and approved by the Government. Authorized deviations are a temporary departure from requirements. Prior to manufacture of an item, if a contractor considers it necessary to temporarily depart form the requirements, the contractor may request a deviation. Where it is determined that a change should be permanent, a engineering change must be processed in accordance with this document.

10. PREPARATION INSTRUCTIONS CONT.

10.3.4 Requirements for Requests for Waiver (RFW). The contractor shall not offer, for acceptance by the Government, items that incorporate a known departure from requirements, unldss a request for waiver haavs been approved. Authorized waivers apply to m a specific quantity of manufactured items. The contractor may process a request for waiver if, during or after manufacture of a n item which incorporates a known departure from requirements, it is determined that the item is considered suitable for use “as is” or after repair by an approved method. Where it is determined that a change should be permanent, a engineering change must be processed.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
ENGINEERING CHANGE PROPOSAL (ECP)	OSO1-9725

3. DESCRIPTION/PURPOSE

3.1 An Engineering Change Proposal (ECP) includes both engineering change and the documentation by which the change is described and suggested.

3.2 An ECP describes changes to configuration items and associated configuration documentation that are affected by the proposed engineering change.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000301	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format, content, and preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Requirements for Engineering Changes. An Engineering Change Proposal shall be required for any changes to the current approved configuration documentation.

10.2 Classification of Engineering Changes. An engineering change shall be classified as Class I or Class II by the preparing contractor in accordance with this DID. Class I ECPs shall be referred to the Government for approval or disapproval. Class I engineering changes should be limited to those which are necessary or offer significant benefit to the Government. A proposed engineering change to a configuration item shall be determined to be Class I by examining the factors below, as contractually applicable, to determine if they would be impacted as a result of implementing the change. The change shall be Class I if:

a. The FCD or ACD, once established, is affected to the extent that any of the following requirements would be outside specified limits or specified tolerances:
   1. Performance.
   2. Reliability, maintainability or survivability.
   3. Weight, size
   4. Interface characteristics.
   5. Electromagnetic characteristics.
   6. Other technical requirements in the specification.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

10. Preparation Instructions Cont.

10.2 Cont.

b. A change to the PCD, once established, will affect the FCD or ACD as described in (a) above or will impact one or more of the following:
   1. GFE
   2. Safety
   3. Compatibility or specified interoperability with interfacing Cis, support equipment or support software, spares, trainers or training devices/ equipment/software.
   4. Configuration to the extent that retrofit action is required.
   5. Delivered operation and maintenance manuals for which adequate change/revision funding is not provided in existing contracts.
   6. Preset adjustments or schedules affecting operating limits or performance to such extent as to require assignment of a new identification number.
   7. Interchangeability, substitutability, or replaceability as applied to Cis, and to all subassemblies and parts except the pieces and parts of non-reparable subassemblies.
   8. Sources of Cis or repairable items at any level defined by source-control drawings.
   9. Skills, manning, training, biomedical factors or human-engineering design.

c. Any of the following contractual factors are affected:
   1. Cost to the Government including incentives and fees.
   2. Contract guarantees or warranties.
   3. Contractual deliveries.
   4. Scheduled contract milestones.

10.3 Class II Engineering Changes. An engineering change which impacts none of the Class I factors specified in 10.2 shall be classified as a Class II engineering change.

10.4 Content of Engineering Change Proposals (ECPs). DD Form 1692 and the instructions for filling out this form are attached to this DID. The contractor may use this form or a contractor generated form using DD Form 1692 as guidance. Any contractor generated form(s) shall be subject to Government approval. Pages 1-7 of DD Form 1692 are used for Class I engineering changes. Page 1 only is used for Class II engineering changes.

10.5 Unrelated Engineering Changes. A separate ECP shall be required for each engineering change which has its own distinct objective.

10.6 Revisions of ECPs. An ECP shall be revised when alterations or changes to the initial ECP shall be revised when alterations or changes to the initial ECP are necessary. The date of the ECP shall be the submission date of the revision.

a. Major revisions to an ECP shall be made as a complete revised package of DD Form 1692 or other approved contractor form(s).
b. Minor revisions to an ECP (such as those which correct errors, add or delete information, update pricing, or provide clarifications) may be made by attaching new or revised pages to a reaccomplished Page 1 of the ECP form.

c. In either case, the information which differs from the original ECP shall be clearly identified in a manner similar to the marking of change pages for specifications. If using Form 1692, block 19 of the ECP form should include information as to whether the revision is a resubmittal, replacing the existing ECP in its entirety, or provides change pages to the existing ECP.

10.7 Supporting Data. Formal ECPs shall be supported by drawings and other data (e.g., LSA data, detailed cost proposal data, test data and analyses) as specified in the contract to justify and describe the change and to determine its total impact including assessments of changes to system operational employment characteristics. A summary of any testing done by the contractor to validate concepts or new technology to be employed in the proposed engineering change shall be presented in the supporting data, and details of such test data shall be provided if it is vital to the decision regarding acceptance of the change.

10.8 Processing Time for Technical Decisions. The criticality of the need for decision will dictate the actual processing time for ECPs. Processing time will be agreed to between the contractor and the Government on a case by case basis.

10.9 ECP Authorization. Unless otherwise specified by the Government, receipt of contractual authorization shall constitute the sole authority for the contractor to effect a Class I change. Authorization of the change granted by the Government will include reference to the ECP by number, revision (if applicable), and date. Such authorization will normally not occur until the Government has performed a review for technical adequacy and supportability.

10.10 Disapproval of ECPs. When the Government disapproves an ECP, the originator will be notified in writing within 30 calendar days of the decision and will be given the reason(s) for the disapproval.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
REQUEST FOR DEVIATION (RFD)	OSO1-9726

3. DESCRIPTION/PURPOSE

3.1 A Request for Deviation describes a proposed (prior to manufacture departure from configuration documentation for a specific number of units or for a specified period of time.

3.2 A Request for Deviation enables the Government to determine the impact on performance, operational readiness, logistics support or other affected areas.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000229	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format, content, and preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Requirements for Requests for Deviation (RFD). The contractor shall not manufacture items for acceptance by the Government that incorporate a known departure from requirements, unless a request for a deviation has been approved. Authorized deviations are a temporary departure from requirements and do not constitute a change to the approved configuration documentation. Prior to manufacture of an item, if a contractor considers it necessary to temporarily depart from the requirements, the contractor may request a deviation. Where it is determined that a change should be permanent, a engineering change must be processed in accordance with the contract.

10.2 Restrictions on Deviations. Unless unusual circumstances exist, critical deviations and deviations which would affect service operation, logistic interoperability, or maintenance (e.g., repair parts, operation or maintenance procedures) shall not be requested. The effectivity of the request for deviation normally should not include the entire remaining number of deliverable units on the contract; if that is the case, an engineering change should be submitted.

10.3 Recurring Deviations. Submittal of recurring deviations is discouraged and shall be minimized. If a proposed deviation is recurring, it is probable that either the requirements of the documentation are too stringent or the corrective action of the manufacturer was ineffective. If it is necessary for a contractor to request a deviation for the same situation with the same item more than two times, then the need for a n engineering change, rather than a deviation, shall be addressed between the Government and the contractor.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

10. Preparation Instructions Cont.

10.4 Classification of Deviations. Each request for deviation shall be designated as major or minor by the originator in accordance with this DID.

10.4.1 Minor. A deviation shall be designated as minor when the deviation consists of a departure which does not involve any of the factors listed in 10.4.2.

10.4.2 Major. A deviation shall be designated as major when the deviation consists of a departure involving health, performance, interchangeability, reliability, survivability, maintainability, durability of the item or its repair parts, effective use or operation, weight and size, appearance, or safety.

10.5 Format. The contractor shall use DD Form 1694 (copy included with this DID), "Request for Deviation/Waiver"or a contractor designed form or letter which contains the information required for DD Form 1694.

10.6 Disposition of Deviations. Unless otherwise specified in the contract, requests for major deviations should be approved or disapproved within 30 calendar days of receipt by the Government, and minor deviations should be approved or disapproved within 15 calendar days of receipt by the Government.

DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
REQUEST FOR WAIVER (RFW)	OSO1-9727

3. DESCRIPTION/PURPOSE

3.1 A Request for Waiver is used to obtain authorization to deliver non-conforming material which does not meet the prescribed configuration documentation but is suitable for use “as is” or after repair.

3.2 A Request for Waiver enables the Government to evaluate and authorize acceptance of an item not conforming to contractual requirements.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
000229	NOAA/NWS/OSO1	N/A	N/A

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description contains the format, content, and preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for the BILS Production Contract.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
	N/A	N/A

10. PREPARATION INSTRUCTIONS

10.1 Requirements for Requests for Waivers (RFW). The contractor shall not offer, for acceptance by the Government, items that incorporate a known departure from requirements, unless a request for waiver has been approved in accordance with this DID. Authorized waivers apply to a specific quantity of manufactured items and do not constitute change to the approved configuration documentation. The contractor may process a request for waiver if, during or after manufacture of an item which incorporates a known departure from requirements, it is determined that the item is considered suitable for use “as is” or after repair by an approved method. Where it is determined that a change should be permanent, an engineering change must be processed in accordance with the contract.

10.2 Restrictions on Waivers. Unless unusual circumstances exist, major waivers and waivers which would affect service operation, logistic interoperability, or maintenance (e.g., repair parts, operation or maintenance procedures) shall not be requested. The effectivity of the request for waiver normally should not include the entire remaining number of deliverable units on the contract; if that is the case, an engineering change should be submitted.

10.3 Recurring Waivers. Submittal of recurring waivers is discouraged and shall be minimized. If a proposed waiver is recurring, it is probable that either the requirements of the documentation are too stringent or the corrective action of the manufacturer was ineffective. If it is necessary for a contractor to request a waiver for the same situation with the same item more than two times, then the need for an engineering change, rather than a waiver, shall be addressed between the Government and the contractor.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

OSO1-9727

10. Preparation Instructions Cont.

10.4 Classification of Waivers. Each request for waiver shall be designated as major or minor by the originator in accordance with this DID.

10.4.1 Minor. A waiver shall be designated as minor when the deviation consists of a departure which does not involve any of the factors listed in 10.4.2.

10.4.2 Major. A waiver shall be designated as major when the waiver consists of acceptance of an item having a nonconformance with contract or configuration documentation requirements involving health, performance, interchangeability, reliability, survivability, maintainability of the item or its repair parts, effective use or operation, weight and size, appearance, or safety.

10.5 Format. The contractor shall use DD Form 1694 (copy included with this DID), "Request for Deviation/Waiver"or a contractor designed form or letter which contains the information required for DD Form 1694.

10.6 Disposition of Waivers. Unless otherwise specified in the contract, requests for major waivers should be approved or disapproved within 30 calendar days of receipt by the Government, and minor waivers should be approved or disapproved within 15 calendar days of receipt by the Government.

Solicitation No. TBD Attachment No. TBD

DRAFT

TECHNICAL MANUAL CONTRACT REQUIREMENTS (TMCR)

FOR

BALLOON INFLATION AND LAUNCH SHELTER (BILS)

DOCUMENT NO. TM-00-02

23 FEBRUARY 2000

DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
OFFICE OF SYSTEMS OPERATIONS
SYSTEMS INTEGRATION DIVISION
OBSERVATION SYSTEMS BRANCH, W/OSO14

PREFACE

For the BILS, the contractor shall provide technical manuals that describe the technical characteristics, equipment, operation, schematic diagrams, shelter equipment layout, maintenance diagrams, fault isolation and troubleshooting procedures. The manuals shall address all maintenance significant items in the BILS and items required to support the continuing operation of the BILS when in field operation.

Table of Contents

TECHNICAL MANUAL CONTRACT REQUIREMENTS
SECTION 1
GENERAL REQUIREMENTS

1.0 Program Acquisition Authority and Requirements. The Acquisition authority for the Balloon Inflation and Launch Shelter (BILS) has been assigned within the Department of Commerce (DOC). BILS acquisition management is being implemented by the Office of Systems Operations, Observation Systems Branch (W/OSO14) located within the National Weather Service (NWS). The Procuring Contracting Officer (PCO) is assigned within the National Oceanic and Atmospheric Administration (NOAA).

1.1 Intended use. Technical manuals acquired in accordance with this document are the only official medium for disseminating technical information, instructions and safety procedures for the operation, maintenance, or modification of BILS equipment and materials.

1.2 Manuals. The technical manuals provided for BILS shall address all necessary operations and maintenance tasks and be scoped for their intended use.

1.3 Precedence. In the event of a conflict between the text of this document and the references herein, the text of this document shall take precedence. In the event of a conflict between the contract and the text of this document, the contract shall take precedence.

2.0 Technical Manual Management/Authorization. Technical Management for the acquisition of BILS technical manuals is W/OSO14. Changes to technical manual requirements and distribution shall be made only with Contracting Officers Technical Representative (COTR) coordination and specific formal approval of the Procuring Contracting Officer.

3.0 Technical Manual Approval.

3.1 Validation. The contractor shall review, inspect and test for technical accuracy of all technical manuals to be supplied hereunder, using said manual(s) and standard/special tools, test equipment, etc., specified by said manual(s). The Government reserves the right to witness the validation.

3.1.1 Validation Performance. Validation entails the actual performance by contractor personnel of all operating and maintenance procedures including checkout, calibration, alignment, scheduled/ unscheduled removal and replacement instructions and associated checklists. The witnessing official may require that the contractor stop validation or change/revise and/or repeat validation steps if this official believes the contractor validation procedure is not adequate to substantiate the technical accuracy of the technical manual.

a. All disassembly and reassembly instructions for scheduled/unscheduled removal and replacement procedures will be validated by actual performance. In exceptional cases when damage to system/equipment or injury to personnel may occur and if approved by the COTR, validation of these instructions may be by simulation, in these cases, paragraph 3.1.2.b shall apply.

b. All other data such as schematic diagrams, wiring data and descriptive data contained in all manuals will be checked against current data.

3.1.2 Validation Methodologies. Validation can take any one or a combination of three acceptable methodologies for accomplishment, depending on the type of equipment or instructions being demonstrated. Validation by simulation and/or desk-top analysis must be approved by the COTR.

a. Demonstration: Actual performance on production hardware or government approved facsimile is the only acceptable means to validate certain tasks. This requires availability of the production hardware, support equipment, and in some cases the use of Government facilities and equipment. Because of its criticality and the time required to perform this type of validation, it is essential that the acquiring activity provide this Government Furnished Equipment/Government Furnished Property (GFE/GFP), and support and test equipment in accordance with the GFE/GFP schedule agreed to by the acquiring activity and the contractor.

b. Simulation: in some instances, actual hands-on demonstration of procedures duplicates similar tasks already demonstrated or needlessly subjects equipment to damage. For these cases "simulating" the procedures, by observing the equipment in its operational configuration, while studying the task to ensure that it is logical, effectively descriptive, and can be accomplished, is an acceptable validation.

c. Desk-Top Analysis: All TMs require a review to ensure compatibility with engineering source materials, accuracy of descriptive data and compliance with contract specification, grammatical rules and format. Analysis is the only practical way of validating certain portions of the TM, such as theory of operation, introduction, etc.

3.1.3 Validation of operational and maintenance procedures. Validation shall be accomplished in time to incorporate changes resulting from validation by the scheduled delivery date to the government. Operational and organizational maintenance procedures that cannot be validated by the scheduled delivery date shall be approved by the COTR on a TM-by-TM basis.

3.1.4 GFE/GFP. When required, the BILS Program Manager will support the contractor's validation by furnishing contractually identified GFE/GFP (support equipment, test equipment and special tools) on a mutually agreed GFE/GFP schedule. It is the contractor's responsibility to identify the equipment needed and to notify the government in advance of the need.

3.2 Inspection. Inspection and acceptance of COTS technical manuals furnished will be performed by the contractor.

3.3 Verification. Verification of all technical manuals is the responsibility of the government. Contractor assistance will be provided as necessary.

4.0 Delivery Media. Each deliverable as specified in Section 3 shall consist of a set of one each of the following:

4.1 Review Draft Copies (RDC). Technical manuals identified on the CDRL as "Draft Copies" include manuals, changes, and revisions and shall be provided or delivered for in-process and other reviews on hardcopy bond or computer paper.

4.2 Final Regular Copies. Technical manuals identified on the CDRL as "Final Reg Copies" include preliminary manuals, final manuals/changes/revisions, and shall be provided on hardcopy bond or computer paper.

4.3 Final Reproducible Copies. Technical manuals identified on the CDRL as "Final Repro Copies" include the following:

4.3.1 Hard Copy. The Preliminary Manual shall be provided as a "ready for printing" copy.

4.3.2 Electronic Media. Text for preliminary and final technical manuals and changes or revisions thereto delivered by the contractor shall be provided on electronic media, 3.5" high-density, DOS-formatted diskettes. Text files shall be in latest version of Word Perfect. All illustration files shall be in Wordperfect, or AutoCad Release 12 or higher. The Contractor shall also provide a digital file in the native file format of the computer application in which the illustration was generated. The contractor shall verify that all diskettes have been scanned for viruses immediately before shipment to the Government. The contractor shall provide a paper directory listing (including all subdirectories) with each diskette shipped. Each diskette shall have a label affixed which includes the contractor's name, the date the disk was prepared and the title of contents.

TECHNICAL MANUAL CONTRACT REQUIREMENTS
SECTION 2
SPECIFIC REQUIREMENTS

1.0 Technical Manuals. Technical manuals, as identified in Section 3 of this document by the acquiring activity, shall provide complete instructions in accordance with the applicable content specification and their referenced documents. Section 3 identifies the type of manuals required and the specifications governing their preparation. This section governs the process of delivery, change and correction.

2.0 Commercial Manuals. Commercial manuals shall be evaluated by the contractor to determine their acceptability for BILS use prior to submitting them to the government for approval. If the government determines that the commercial manual is inadequate, the contractor shall include the required additional commercial manual information as an Appendix to the BILS System O&M Manual. During the period of performance or fiscal year covered by the contract, updated, changed or revised commercial manuals shall be provided to the government, as specified in Section 3 of this document, to reflect all configurations of hardware/software delivered to the government.

2.1 Copyrights. A commercial manual may contain copyrighted information. The contractor shall agree and shall grant to the government, upon submission of the manual for review and acceptance of the manual by the government, a royalty-free, nonexclusive and irrevocable license to reproduce all data in the manual covered by copyright. This grant is limited that such data may not be released outside of the government or its contractors.

3.0 Coordination reviews and inspections. Reviews and inspections may be held at the contractor's facility or government facility. Prior to the preparation of the reproduction medium, any reviews and inspections of text and illustrations for determining preparation progress, technical accuracy and adequacy may be held at the contractor's or government facility. The contractor shall schedule these meetings through the acquiring activity so that all necessary changes and corrections to concerned manuals may be accomplished in time to meet contract delivery schedule requirements. The contractor shall include dates for scheduled reviews consistent with requirements of CDRL data iter number A011.

3.1 In-Process Reviews. The contractor and the COTR shall use in-process reviews to ensure that manuals are being prepared in accordance with the contract and cited specifications. In-process reviews shall be held at the 30% and 60% completion of individual technical manuals or by grouping of system/component technical manuals. Additional in-process reviews may be required based on the contractors or government's evaluation of the technical manual development process.

4.0 Obtaining GFE data. The contractor shall obtain all data for GFE from the Government, to fulfill the technical manual requirements for integration into the System O&M manual.

5.0 Duplication of data. The contractor shall ensure that requirements contained herein do not generate the duplication of technical manual data already developed or generated.

6.0 Review Draft Copies (RDCs). The contractor shall prepare RDCs in limited quantities to review during in-process reviews. These RDCs shall be fully edited and shall be in printed form.

7.0 Preliminary Technical Manual(s). The contractor shall prepare preliminary technical manuals in the quantity specified in Section 3 to test and verify the procedures contained therein against the production version of the equipment or government approved facsimile and shall initially be furnished to W/OSO14.

7.1 Final Technical Manual Requirements. Final technical manuals shall be the Government's TM baseline and the final delivery of the entire manual. It shall include all validation, verification, and PCA updates.

8.0 Changes/revisions/supplements. The contractor shall prepare changes/revisions/supplements to manuals specified herein.

8.1 Routine changes. The contractor shall maintain BILS manuals current by furnishing necessary changes throughout the contract period of performance. These changes shall be submitted to cover any existing errors or omissions in the text discovered after the initial date of Government acceptance of the manuals, to expand and improve on data coverage when necessary, and to include information developed as a result of experience gained through utilization of the equipment. The cost of the original material shall be considered to cover such changes. Acceptance of the initial data in no way relieves the contractor of the requirement to submit these changes.

9.0 Delivery Requirements. Reproduction media of technical manuals shall cite the appropriate contract number on the assembly sheet and be submitted to the government office specified by the acquiring activity.

9.1 Review Draft Copies (RDCs). Review Draft Copies shall be delivered 30 days prior to the in-process review for that document. This does not relieve the contractor from furnishing copies of RDCs for use by the government during all reviews.

9.2 Preliminary Technical Manuals. Preliminary Technical Manuals as defined in paragraph 7.0 shall be validated and delivered 120 days after CDR, in hardcopy and electronic media in accordance with Section 1, paragraphs 4.3.1, and 4.3.2.

9.3 Technical Manuals. Copies of manuals or reproduction media shall be released to the Procuring Contracting Officer or his designated representative.

9.3.1 Final Technical Manuals. Final Technical Manuals as defined in paragraph 7.1 shall be delivered as follows:

a. Copies of the final manual shall be delivered for review 60 days after receipt of Government comments on the preliminary manuals in accordance with Section 1, paragraph 4.2.

b. Electronic Media of the final manuals text and illustrations in accordance with Section 1, paragraph 4.3.2, shall be delivered 30 days after receipt of Government comments on the final review copy.

11.4 Changes and revisions.

a. Safety. The contractor shall submit changes to correct errors affecting safety immediately when the facts become known.

b. Major Configuration Changes. The contractor shall submit changes/revisions covering major configuration changes 45 days before delivery of the first production item affected.

c. Minor changes. The contractor shall submit changes/revisions to correct any existing errors, to expand and improve on data coverage and to include information developed as a result of experience. Minor changes shall be submitted as required.

d. Final delivery. Upon submittal of the final reproduction media, the contractor shall certify in the transmittal document that all known and contractually required improvements have been incorporated and they completely cover the equipment as produced. A copy of the transmittal document shall be forwarded to the COTR and W/OSO14.

TECHNICAL MANUAL CONTRACT REQUIREMENTS
SECTION 3
DELIVERABLE TECHNICAL MANUALS

TABLE 1

BALLOON INFLATION AND LAUNCH SHELTER (BILS)
TECHNICAL MANUAL (TM) REQUIREMENTS

	Title or Type of Manuals	**Will be Prepared**
1.	Operation Instructions	YES
2.	Maintenance Instructions	YES*
3.	Circuit Diagrams	YES
4.	Illustrated Parts Breakdown	YES
5.	General Style and Format Requirement	YES

* Includes planned maintenance type procedures (e.g. lubricating, cleaning, checking for wear, etc.)

TABLE 2
BALLOON INFLATION AND LAUNCH SHELTER (BILS)
TECHNICAL MANUAL (TM) DELIVERABLES

1 .Atch Nr.	2. Contractor/PR:				3. 0PR:	
4. Seg. Nr: TM	5. Contractor:					
6. Deliverables: BILS System O&M Manual						
7. Type Deliverables (Total Quantity):						
a. Review Draft Copies Qty 10	b. Preliminary Manuals Qty 10		c. Final Manuals Qty 1			
Qty in 7a - c include changes, revisions, supplements						
8. Office Symbol	Type 7a Qty	Type 7b Qty	Type 7c Qty			
W/OSO14	5	5	1			
W/OSO31	1	1	0			
W/OSO321	1	1	0			
W/OSO322	1	1	0			
W/OSO323	1	1	0			
NRC, W/OSO33	1	1	0			
Totals	10	10	1			

TABLE 3
COMMERCIAL TECHNICAL MANUALS
REQUIREMENTS

Title or Type of Manuals	**Will be Provided**
1. Commercial Manuals	YES

TABLE 4
COMMERCIAL TECHNICAL MANUALS
DELIVERABLES

1.Atch Nr.	2. Contract/PR:	3. 0PR:
4. Seg. Nr: TM	5. Contractor:	
6. Deliverables: BILS Equipment TMs		
7. Type Deliverables (Total Quantity):		
a. Review copy Qty 10	b. Approved Manual Qty 25	
c. Reproduction Media: As Available		
Qty in 7a - c include changes, revisions, supplements		

8. Office Symbol	Type 7a Qty	Type 7b Qty	Type 7c Qty			
W/OSO14	2*	15*	As Available			
W/OSO31	1	1	N/A			
W/OSO321	1	1	N/A			
W/OSO322	1	1	N/A			
W/OSO323	1	1	N/A			
NRC W/OSO33	1	1	N/A			
Totals	7	20	As Available			

* The quantity of manuals provided is based on Section 2, Paragraph 2.3, and the Government's right to reproduce all manuals covered by copyright.

TECHNICAL MANUAL CONTRACT REQUIREMENTS